Title (en)

Output buffer circuit.

Title (de)

Ausgangspufferschaltung.

Title (fr)

Circuit de tampon de sortie.

Publication

EP 0368524 B1 19940112 (EN)

Application

EP 89311147 A 19891027

Priority

US 26902288 A 19881109

Abstract (en)

[origin: EP0368524A1] A buffer circuit particularly suited for driving the output pad (2) of an integrated circuit, includes features which limit the rate of change of current flow in the power supply and ground lines to reduce noise. The circuit features feedback responsive compensation for variations in the capacitive load on the pad. In one form, the circuit includes feedback capacitors (21,22) between the pad (2) and the control gate of output transistors (18,19) pulling the pad (2). The control gates of such pulling output driver transistors (18,19) are, under one operational condition, provided with a voltage which increases at a limited rate during current enablement. The steady-state enablement of the output driver transistor is established later by circuits (36,38;37,39) logically responsive to the voltage on the output pad (2). The output driver transistors (18,19) are subject to rapid disablement in response to a pulling of the control gate by high speed and drive capacity transistors (23,24). In a preferred arrangement the circuit includes tri-state operation capability.

IPC 1-7

H03K 19/003; H03K 19/0185

IPC 8 full level

G11C 7/10 (2006.01); **G11C 11/417** (2006.01); **H01L 23/58** (2006.01); **H03K 5/02** (2006.01); **H03K 17/16** (2006.01); **H03K 19/003** (2006.01); **H03K 19/0175** (2006.01); **H03K 19/0185** (2006.01); **H03K 19/094** (2006.01)

CPC (source: EP US)

G11C 7/1051 (2013.01 - EP US); **G11C 7/1078** (2013.01 - EP US); **H03K 19/00361** (2013.01 - EP US); **H03K 19/09429** (2013.01 - EP US)

Citation (examination)

- US 4504779 A 19850312 - HAMAN DANIEL J [US]
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DOCDB simple family (publication)

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DOCDB simple family (application)

EP 89311147 A 19891027; DE 68912277 T 19891027; JP 27391589 A 19891023; US 26902288 A 19881109